

Patent claims

1. Method for the production of fibres and other moulded articles, in which a lyotropic solution of cellulose carbamate in N-methylmorpholine-N-oxide (NMMNO) is shaped by means of extrusion from at least one nozzle via an air gap into a regenerating bath.

2. Method according to claim 1,

characterised in that the ratio of length to diameter of the nozzles is from 1 to 20.

3. Method according to one of the claims 1 or 2,

characterised in that the drawing-off ratio is in the range of 5 to 200.

4. Method according to one of the preceding claims,

characterised in that the width of the air gap between nozzle and regenerating bath is 5 to 150 mm, in particular 10 to 50 mm.

5. Method according to one of the preceding claims,

characterised in that the cellulose carbamate proportion of the lyotropic solution is at least 20% by wt., in particular 22 to 27% by wt., relative to the solution.

6. Method according to one of the preceding claims,

characterised in that the lyotropic solution is produced by swelling of the cellulose carbamate in a 40 to 70%, in particular 50% solution of NMMNO in water and subsequent removal of the water up to a ratio of NMMNO to water between 80 : 20 and 90 : 10.

7. Method according to one of the preceding claims,

characterised in that the regenerating bath comprises a solution of NMMNO in water with an NMMNO proportion of 0.5 to 25% by wt., in particular 5 to 15% by wt., relative to the solution.

8. Method according to one of the preceding claims,

characterised in that the extrusion is effected at a temperature between 80 to 110°C, in particular 85 to 95°C.

9. Method according to one of the preceding claims,

characterised in that the cellulose carbamate is regenerated into cellulose in a regenerating bath.

10. Method according to the preceding claim,

characterised in that the regenerating bath comprises 0.3 to 1% by wt. sodium hydroxide in water and the regeneration is implemented at a temperature of 60 to 95°C.

11. Fibres or other moulded articles comprising cellulose carbamate and/or regenerated cellulose,

characterised in that the fibres or other moulded articles have a strength of at least 60 cN/tex.

12. Fibres or other moulded articles according to claim 12,

characterised in that the fibres or other moulded articles can be produced according to the method according to one of the claims 1 to 11.